

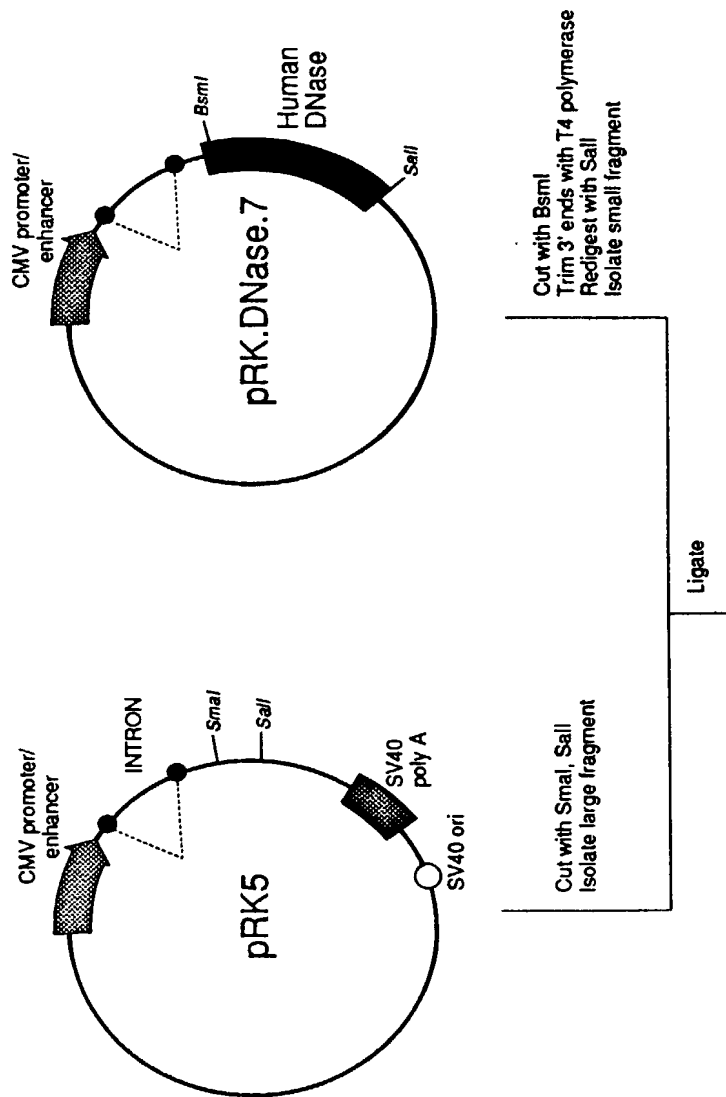
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	AGGACGTGTC	CGTCACGGAA	CTTCACGAAG	AAGTCTCTGG	AAAGAGGTAT	CTGATGAAA	AAAGAAATT	CGTCGTTTC	CTCTTTAAC	AGTAGTTTCC
1	SerCysThr	lySerAla	leuLysPhe	PheArgAsp	euserSer	*ThrThrPhe	PheSerLeu	erSerLys	argLysLeu	SerSerLysAsp
101	ATATTCACAG	TTCTTGACAG	CATTCTCGTC	ATCTCTGAGG	ACATCACCAT	CATCTCAGCA	TGAGGGGAT	GAAGCTGCTG	GGGGCGCTGC	TGGCACTGGC
	TATAAGGTCT	AAGAACTGTC	GTAACAGCAG	TAGAGACTCC	TGTAGTGGTA	GTAGAGTCT	ACTCCCGTA	CTTCGACAC	CCCCCGCAG	ACCGTAGCCG
35	IleProAs	pSerOP*Gln	HisSerArgH	isLeuOP*G	yHisHisHis	HisLeuArgM	etArgGlyMe	tLysLeuLeu	GlyAlaLeuL	euAlaLeuAla
201	GGCCCTACTG	CAGGGGGCGG	TGTCCTGTAA	GATCGCAGCC	TTCAACATCC	AGACATTTGG	GGAGACCAAG	ATGTCCAATG	CCACCTCTCG	CAGCTACATT
	CCGGGATGAC	TCCCCCGCG	ACAGGACTT	CTAGCGTCGG	AAGTTGTAGG	TCTGTAAACC	CCTCTGGTTC	TACAGGTTAC	GGTGGGAGCA	GTGARGTTAA
68	AlaLeuLeu	GlnGlyAla	alSerLeuL	sileAlaAla	PheasnileG	InThrPheG	yGluThrLys	MetSerAsnA	laThrLeuVa	lSerTyrlle
301	GTGCAGATCC	TGAGCCCGCTA	TGACATCGCC	CTGGTCCAGG	AGTTCAGAGA	CAGCCACCTG	ACTGCGGTGG	GGAAGCTGCT	GGCAACAACCTC	AATCAGGTATG
	CACGCTTAGG	ACTCGGCGAT	ACTGAGCGG	GACCAGGTCC	TCCAGTCTCT	GTGCGTGAC	TGACGGCAC	CTCTCGACA	CCTCTGGAG	TTAGTCTCAT
101	valGlnileL	euserArgTy	rasPileAla	leuValGlnG	luValargAs	pSerHisLys	ThrAlaValG	lLysLeuLe	uAspAsnLys	AsnGlnAspAla
401	CACCAGACAC	CTATCACTAC	GTGGTCACTG	AGCCACTGGG	ACGGAAACAGC	TATAAGGAGC	GCTACTGTT	CGTGTACAGG	CTGACCACAG	TGCTCGCGGT
	GTGGTCTGTG	GATAGTGATG	CACCACTCAC	TCGGTGACCC	TGCCCTGTCTG	ATATTCCTCG	CGATGACCAA	GCATACTGCC	GGACTGGTCC	ACAGACGCCA
135	ProAspTh	rTyHistiTy	valvalSerG	luProLeuG	yArgasnSer	TyrLysGluA	rgTyrlleupH	eValTyArg	ProAspGlnV	alSerAlaVal
501	GGACGACTAC	TACTACGATG	ATGGCTGCGA	TACCGTACGCT	TACGACGCT	CGGACGCCC	CGGTCGCTT	CGTCCCGTT	TCTCCCGTT	CACAGAGGTC
	CCTGTCTGATG	ATGATGCTAC	TACCGACGCT	CGGACGCCC	TTGCTGTGGA	AACTGCTGGA	CGTCCGTTAA	CAGTCCAAGA	AGAGGGCCAA	GTGTCTCCAG
168	AspSerTy	TyrTyraSpa	spGlyCysG	uProCysGly	AsnAspThr	heAsnArgG	uProAlaile	ValArgPheP	heserArgph	eThrGluVal
601	AGGAGTTTG	CCATTGTTCC	CCTGATCGG	GGCCCCGGGG	ACCGAGTAGC	CGAGATCGAC	GCTCTTATG	ACGTCTACT	GGATGTCCAA	GAGAAATGGG
	TCCCTCAAAC	GGTAACAAG	GGACGTACGC	CGGGCCCCC	TGGCTCATCG	GTCTAGCTG	CGAGAGATAC	TGCAGATGA	CCTACAGGTT	CTCTTTACCC
201	ArgGluPheA	laileValPr	oLeuHisAla	AlaProGlyA	spArgValAl	agluileasp	AlaLeutyra	spValTyrl	uaspvalGln	GluLysTrpGly
701	GCTTGGAGGA	GCTCATGATG	ATGGCGGACT	TCAATGCGGG	GTGAGACCTT	GTGAGACCTT	CCCAGTGGTC	ATCCATCCGC	CTGTGGACAA	CCCCACCTT
	CGAACCTCCT	CGCATGACAC	TACCCGCTGA	AGTTACGCC	CACCTCTGGA	CACCTCTGGA	GGGTACACAG	TAGGTAGGCG	GACACTGTT	CGGGTGGAA
235	LeuGluAs	pValMetLeu	MetGlyAsp	heAsnAlaG	yCysSerTy	ValArgProS	erGlnTrpSe	rSerileArg	LeuTrpThrs	erProThrPhe
801	CAAGTGGGTG	ATCCCCGACA	CGGTGACAC	CACAGCTACA	CCCACCACT	GTGCTATGA	CAGGATCGTG	GTTCACGGGA	TGCTCTCTCC	AGGCGCGGTT
	GGTCACCGAC	TAGGGGCTGT	CGCGACTGTG	GTGTCGATGT	GGGTGGGTGA	CACGGATACT	GTCTTAGCAC	CAACGTCCCT	ACGACGAGG	TCCGCGCAA
268	GlnTrpLeu	IleProAspS	erAlaAspTh	rThrAlaThr	ProThrHisc	ysAlaTyrlas	pargileVal	valAlaGlyM	etLeuLeuar	gGlyAlaVal
901	GTTCCTCGACT	CGGCTCTTCC	CTTTAACTTC	CAGGCTGCCT	ATGGCTTGAG	TGACCAACTG	GCCCCAGCCA	TCAGTGACCA	CTATCCAGTG	GAGGTGATGC
	CAAGGCGTGA	GCCGAGAAG	GAAATTTGAG	GTCCGACGGA	TACCGACTC	ACTGGTTGAC	CGGGTTCGGT	AGTCACTGCT	GATAGTCTAC	CTCCACTACG
301	valProAsps	erAlaLeuPr	opheasnPhe	GlnAlaAlat	yrGlyLeuse	RaspGlnLeu	AlaGlnAlaI	leSerAspHi	styrProVal	GluValMetLeu
1001	TGAAGTGAGC	AGCCCCCTCC	CACACAGTT	GAACTGCAG						
	ACTTCACTCG	TCGGGGAGGG	GTGTGCTCAA	CTTGACGTC						
335	LysOP*Al	alalaProPro	HisthrSero	p*ThrAla						



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Fig. 3.



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Fig.3(cont.)

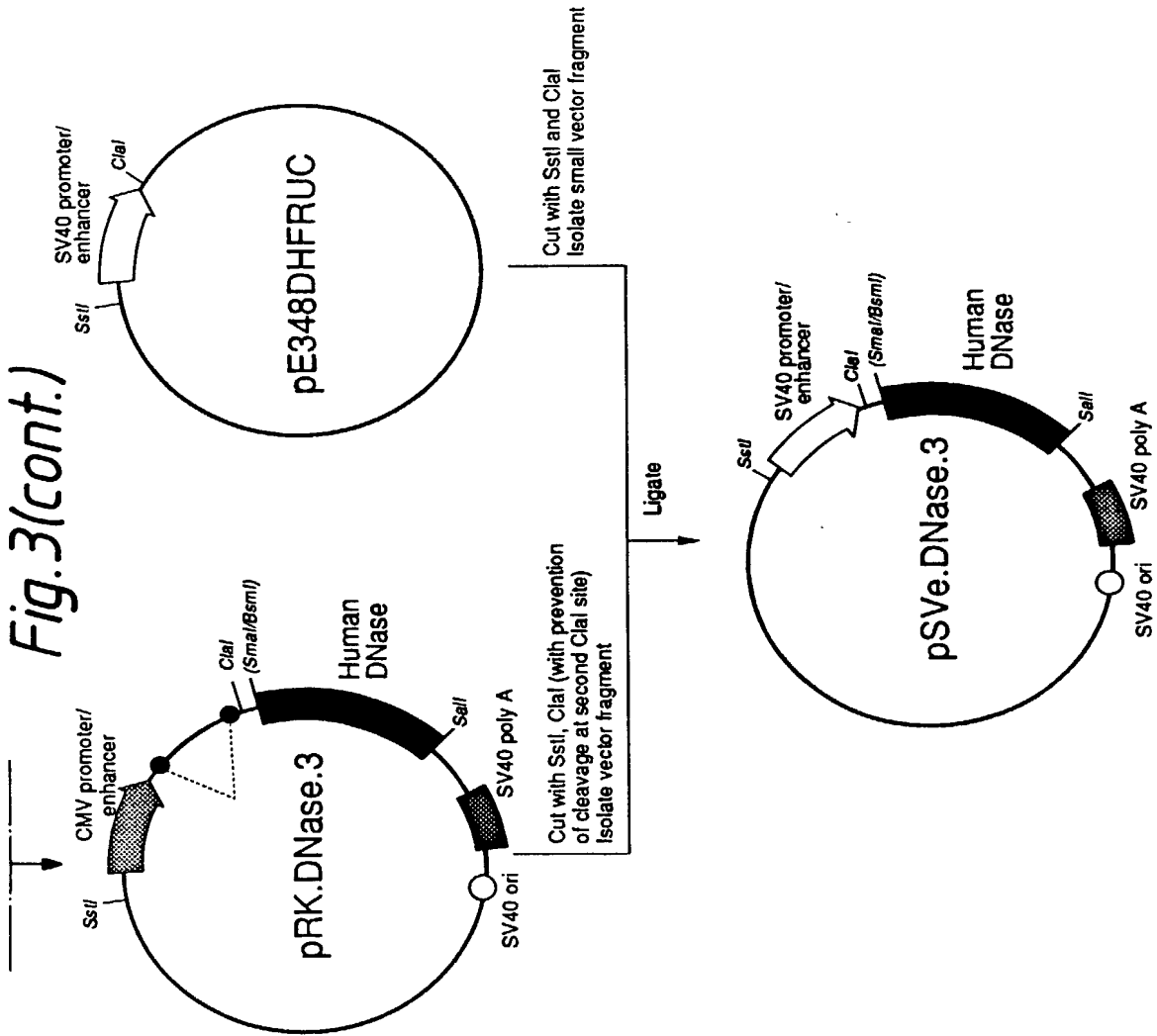
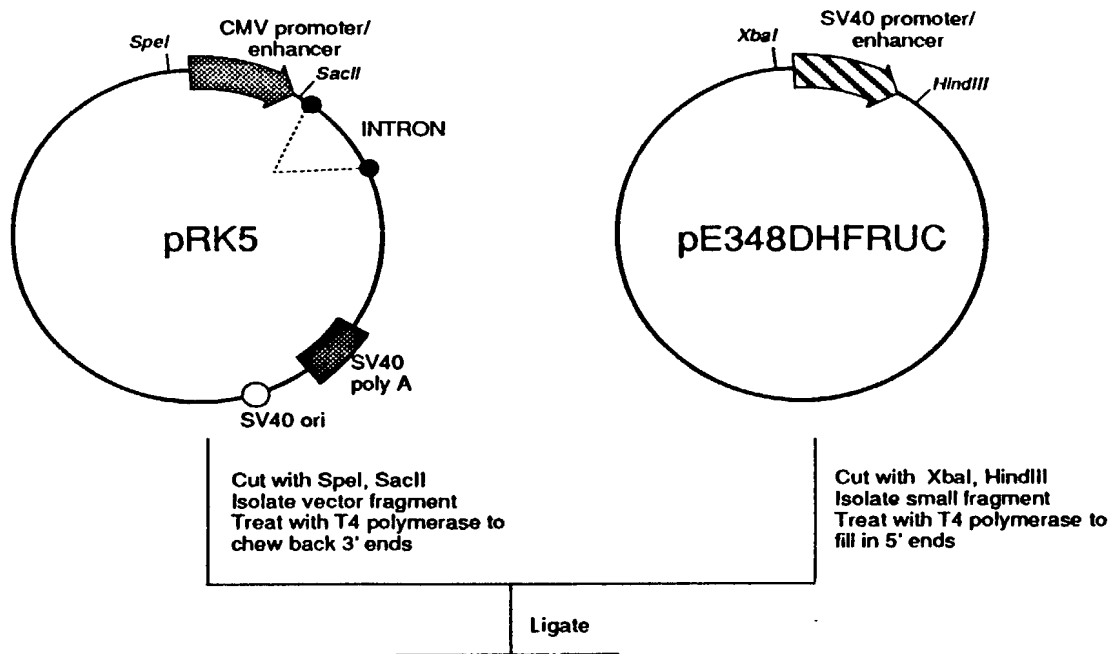


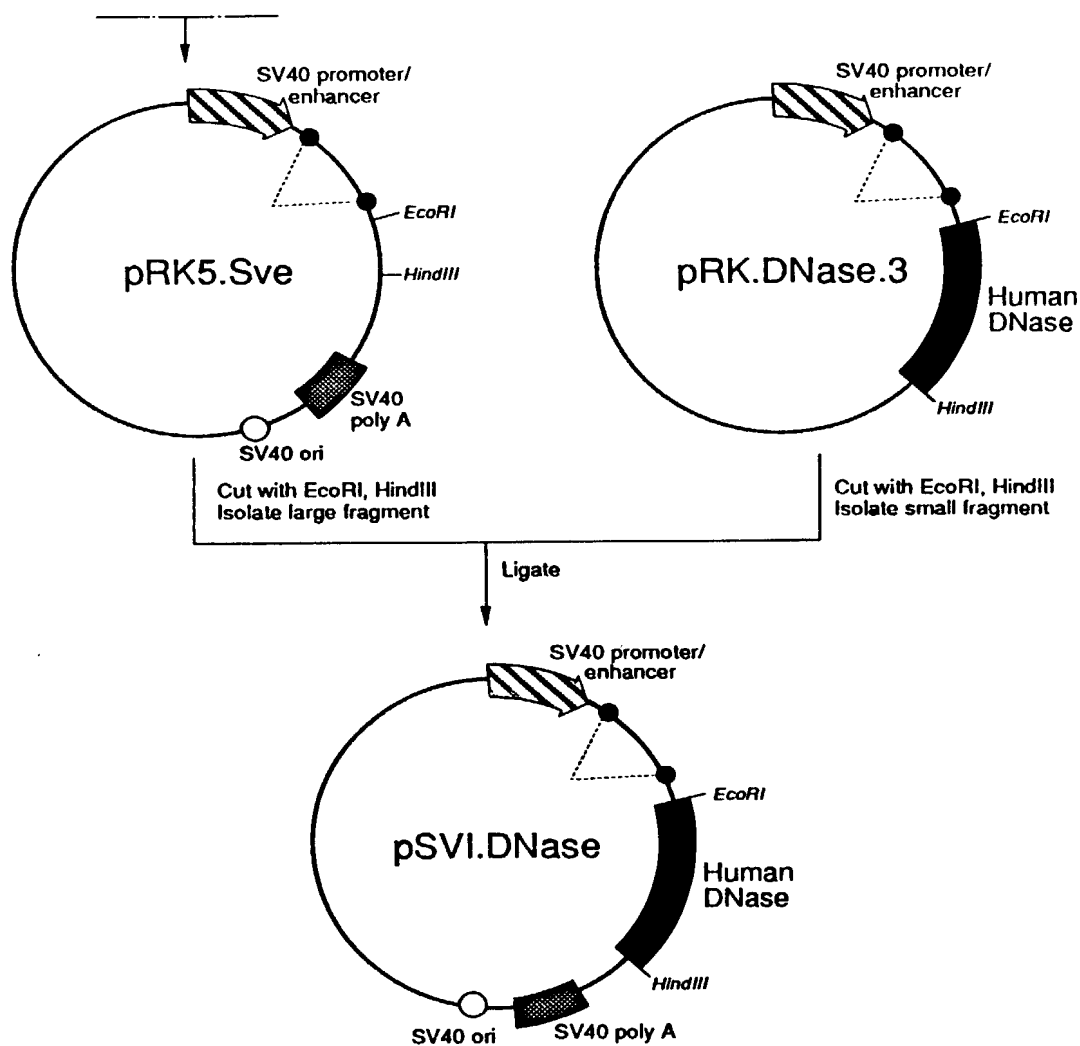
Fig.4.



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Fig.4 (cont.)



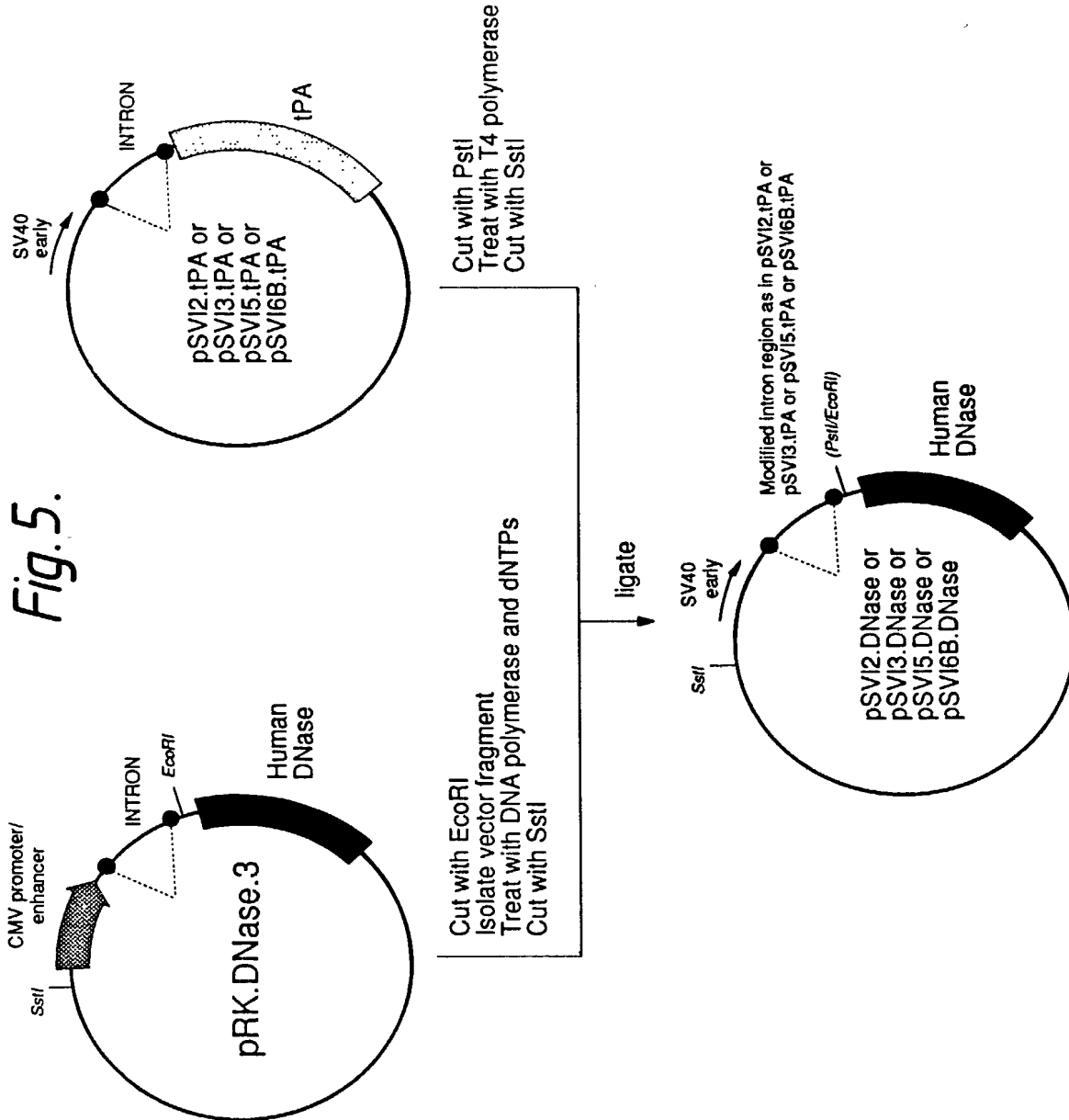
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Fig. 5.





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Fig.6(cont.)

```

                                sau96I
                                avall
                                asuI
                                scrFI
                                ecorII
                                bstNI
                                foki
                                sp6 RNA start
                                hphI
                                note ATG
                                mseI
                                501 TTAATACATA ACCTTATGTA TCATACACAT ACGATTTAGG TGACACTATA GAATAACATC CACTTTGCCCT TTCTCTCCAC AGGTGTCCAC TCCCAGGTCC
                                AATTATGTAT TGGAAATACAT AGTATGTGTA TGCTAAATCC ACTGTGATAT CTTATTGTAG GTGAAACGGA AAGAGAGGTG TCCACAGGTG AGGTCCAGG
                                bspMI
                                aluI
                                pstI
                                hindIII
                                fnu4HI
                                mnlI
                                ddeI
                                bbvI
                                mseI
                                hgaI
                                1
                                cloning linker
                                601 AACTGCACCT CGGTCTTAAG CTTGGGCTGC AGGTGCGCGT GAATTTAAGG GACGCTGTGA AGCA
                                TTGACGTGGA GCCAAGATTC GAACCCGACG TCCAGCGGCA CTAAATTC CTGGACACT TCGT
```

NT & TRADEMARK

aluI
 sstI
 sacI
 hgiII
 hgiAI
 bspI286
 banII
 taqI
 1 TTTCGAGCTCG CCCGACATTG ATTATTGACT ATTATTGACTA TAATAACTGA TCTCAGCTGT CGACACCTTA CACACACTCA ATCCACACC TTTCAGGGGT CCGAGGGGTC GTCCGTCTTC
 AAGCTCAGC GGGCTGTAAC
 accI
 pleI
 hinfI
 pvuII
 aluI
 nlaIV
 scrFI
 ecorII
 bstNI
 nsII
 avaiII
 nlaIII
 sphi
 nspCIX
 101 TATGCAAGC ATGCATCTCA ATTAGTCAGC AACCAAGTGT GGAAAGTCCC CAGGCTCCCC AGCAGGAGAG AGTATGCAAA GCATGCATCT CAATTAGTCA
 ATACGTTTCG TACGTAGAGT TAATCAGTCG TTGGTCCACA CCTTTCAGG GTCCGAGGG TCGTCCGTCT TCATACGTTT CGTACGAGAG GTTAATCAGT
 fnu4HI
 bglI
 sfiI
 haeIII
 haeIII
 mnlI
 mnlI
 mnlI
 aluI
 201 GCAACCATAG TCCCGCCCTT AACTCCGCC ATCCCGCCC TAACTCCGCC CAGTTCGCC CATTCCTCCG CCCATGGCTG ACTAATTTTT TTTATTTATG
 CGTTGGTATC AGGGCGGGA TTGAGGCGGG TAGGGCGGGG ATTGAGGCGG GTCAAGGCGG GGTACCGAG GGTACCGAG TGATTAAAA AAATAAATAC
 foki
 bsrI
 nlaIII
 styI
 ncoI
 scrFI
 nciI
 mspI
 hpaII
 haeIII
 xmaII
 eagI
 eaeI
 cfrI
 aluI
 mspI
 cauII
 hndIII
 hpaII
 301 CAGAGGCGGA GGCCGCTCG GCCTCTGAGC TATTCAGAA GTAGTGAGGA GCGTTTTTTG GAGGCCTAGG CTTTTGCAAA AGCTTTATCC GGCCGGGAAC
 GTCTCCGGCT CCGCGGAGC CGGAGACTCG ATAAGGTCTT CATCACTCCT CGAAAAAAC CTCCGATCC GAAAACGTTT TTCGAATAGG CCGGCCCTTG
 hinfI
 thaI
 fnuDII
 bstUI
 pleI
 hinfI
 rsal
 51 matched splice donor
 401 GGTGCAITGG AACGGGATT CCGCGTGCCA AGAGTCAAGT AAGTACCGCC TATAGAGTCT ATAGGCCAC CCGCTTGCT TCGTTAGAAC GGGGCTACAA
 CCACGTAACT TTGCGCTAA GGGGACGGT TCTCAGTCCA TTCTAGGCGG ATATCTCAGA TATCCGGGTG GGGGAACCGA AGCAATCTTG CCGCGATGTT
 hinfI
 thaI
 fnuDII
 bstUI
 pleI
 hinfI
 rsal
 51 matched splice donor
 401 GGTGCAITGG AACGGGATT CCGCGTGCCA AGAGTCAAGT AAGTACCGCC TATAGAGTCT ATAGGCCAC CCGCTTGCT TCGTTAGAAC GGGGCTACAA
 CCACGTAACT TTGCGCTAA GGGGACGGT TCTCAGTCCA TTCTAGGCGG ATATCTCAGA TATCCGGGTG GGGGAACCGA AGCAATCTTG CCGCGATGTT

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Fig. 7(cont.)

```

sau96I
avaII
asuI
scrFI
ecorII
bstNI

mseI          note ATG          hphI          foki          sp6 RNA start
501 TTAATACATA ACCTTATGTA TCATACACAT ACGATTATTAGG TGACACTATA GAATACATC CACTTTGCCT TTCTCTCCAC AGGTGTCCAC TCCCAGGTCC
AATTATGTAT TGGATACAT AGTATGTGTA TGCTAAATCC ACTGTGATAT CTTATTGTAG GTGAAACGGA AAGAGAGGTG TCCACAGGTG AGGTCCAGG

                                bspMI
                                pstI
                                fnu4HI
                                mnlI    ddeI          aluI    hindIII          mseI    hgaI
                                bbvI

1      cloning linker
601 AACTGCACCT CGGTCTTAAG CTTGGGCTGC AGTCGCCCGT GAATTTAAGG GACGCTGTGA AGCA
TTGACGTGGA GCCAAGATTC GAACCCGACG TCCAGCGGCA CTTAAATTCC CTGCGACACT TCGT
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Fig. 8.

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Fig.8(cont.)

```

sau3AI
mboI
dpmI
alwI
xhoII
nlaIV
bstYI
bamHI
alwI
removed ATG lariat consensus
501 TTAATACATA ACCTTTGGG TCCTATAGAC TGACATCCAC TTTGGCTTTC TCTCCACAGG TGTCACCTCC CAGGTCCAAC TGCACCTCGG TTCGAAGCTT
AATTATGTAT TGGAAACCT AGGATATCTG ACTGTAGGTG AAACGAAAG AGAGGTGTC ACAGGTGAGG GTCCAGGTG ACGTGGAGCC AAGCTTCGAA

mseI
bspMI
psti
fnu4HI
bbvI
mseI hgaI

1 GGGCTGCAGG TCGCCGTGAA TTTAAGGGAC GCTGTGAAGC A
601 CCGGACGTCC AGCGGCACCT AAATCCCTG CGACACTTCG T

```

```

sau96I
avaII
asuI
scrFI
ecorII
bstNI
mnII
cloning linker

```

```

alul
hindIII
taqI
bstBI
asuII

```

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Fig. 9.

aluI
 sstI
 sacI
 hgiIII
 hgiAI
 bspI286
 banII
 taqI
 1 TTCGAGCTCG CCCGACATTG ATTATTGACT AGAGTCGACA GCTGTGGAAT GTGTGTCAGT
 AAGCTCGAGC GGGCTGTAAC TAATAACTGA TCTCAGCTGT CGACACCTTA CACACAGTCA

taqI
 salI
 hindIII
 hincII
 accI
 pleI aluI
 hinfI pvuII

61 TAGGGTGTGG AAAGTCCCCA GGCTCCCCAG CAGGCAGAAG TATGCAAAGC ATGCATCTCA
 ATCCACACACC TTTCAGGGGT CCGAGGGGTC GTCCGTCTTC ATACGTTTCG TACGTAGAGT

nlaIV
 scrFI
 ecorII
 bstNI
 121 ATTAGTCAGC AACCAGGTGT GGAAAGTCCC CAGGCTCCCC AGCAGGCAGA AGTATGCAAA
 TAATCAGTCG TTGGTCCACA CCTTTCAGGG GTCCGAGGGG TCGTCCGTCT TCATACGTTT

nlaIV
 scrFI
 ecorII
 bstNI
 181 GCATGCATCT CAATTAGTCA GCAACCATAG TCCCGCCCCT AACTCCGCCC ATCCCGCCCC
 CGTACGTAGA GTTAATCAGT CGTTGGTATC AGGGCGGGGA TTGAGGCGGG TAGGGCGGGG

sfaNI
 nsII
 avaIII
 nlaIII
 sphI
 nspCIX
 241 TAACTCCGCC CAGTTCGCC CATTCTCCGC CCCATGGCTG ACTAATTTTT TTTATTTATG
 ATTGAGGCGG GTCAAGGCGG GTAAGAGGCG GGGTACCGAC TGATTAAAAA AAATAAATAC

nlaIII
 styI
 ncoI
 bsrI
 301 CAGAGGCCGA GGCCGCCTCG GCCTCTGAGC TATTCAGAA GTAGTGAGGA GGCTTTTTTTG
 GTCTCCGGCT CCGGCGGAGC CGGAGACTCG ATAAGGTCTT CATCACTCCT CCGAAAAAAC

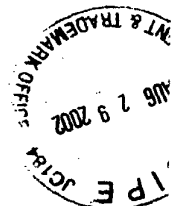
fnu4HI
 bglI
 sfiI
 ddeI
 haeIII haeIII haeIII
 mnlI mnlI mnlI mnlI aluI
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 CTCCGGATCC GAAAACGTTT TTCGAATAGG CCGGCCCTTG CCACGTAACC TTGCGCCTAA

scrFI
 nciI
 mspI
 hpaII
 haeIII
 xmaIII
 eagI
 eaeI
 cfrI
 aluI mspI cauII
 hindIII hpaII
 421 CCCC GTGCCA AGAGTCAGGT AAGTACCGCC TATAGAGTCT ATAGGCCAC CCCCTTGCT
 GGGGCACGGT TCTCAGTCCA TTCATGGCGG ATATCTCAGA TATCCGGGTG GGGGAACCGA

bstXI
 sau96I
 haeIII
 asuI
 pleI
 hinfI
 rsaI
 U1 matched splice donar
 421 CCCC GTGCCA AGAGTCAGGT AAGTACCGCC TATAGAGTCT ATAGGCCAC CCCCTTGCT
 GGGGCACGGT TCTCAGTCCA TTCATGGCGG ATATCTCAGA TATCCGGGTG GGGGAACCGA

styI
 avrII
 haeIII
 stuI
 haeI
 mnlI
 hinfI
 thaI
 fnuDII
 bstUI

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Fig. 9(cont.)

```

sau3AI
mboI
dpnI
alwI
xhoII
nlaIV
bstYI
bamHI
alwI
removed ATG
sp6 promoter
fnu4HI
thai
fnuDII
bstUI
mseI
aseI
481 TCGTTTGAAC CGGGCTACAA TTAATACATA ACCTTTTGA TCCTACTAAC TACTGACTTA
AGCAATCTTG CGCCGATGTT AATTATGTAT TGGAAACCT AGGATGATTG ATGACTGAAT
U2 match lariat consensus
sau96I
avaII
asuI
scrFI
ecorII
bstNI
thai
fnuDII
bstUI
mnlI
nruI hindIII
cloning linker
541 TTCTTTTCCT TTCTCTCCAC AGGTGTCCAC TCCACAGGTG AGGTCCAGG TTGACGTGGA GCCAAGCGCT
AAGAAAAGGA AAGAGAGGTG TCCACAGGTG TCCACAGGTG AACTGCACCT CGGTTCCGCGA
601 AGCTTGGGCT GCAGGTCCGC GTGAATTTAA GGGACGCTGT GAAGCA
TCGAACCCGA CGTCCAGCGG CACTTAAAT CCCTGGGACA CTTCGT
bspMI
pstI
fnu4HI
aluI
bbvI
mseI
hgaI
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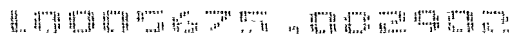


Fig. 10.

[illegible]



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Fig. 10(cont.)

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sau3AI      sau96I      thal aluI      cloning linker
mboI        avail      fnuDI        ACTGCACCTC GGTTCCGGA
dpnI        asuI        bstUI        GGTGTCCACT CCCAGGTCCA
alwI        scrFI       ecorII       CCACAGGTGA GGTCCAGGT
xhoII       bstNI      mnII         nruI hindIII  TGACGTGGAG CCAAGCGCTT
nlaIV
bstYI
bamHI
alwI
removed ATG
U2 match
fokI
lariat consensus
IgG vH natural lariat restored
501 TTAATACATA ACCTTTTGGG TCCTACTGAC ACTGACATCC ACTTTTCTT TTTCTCCACA GGTGTCCACT CCCAGGTCCA ACTGCACCTC GGTTCCGGA
AATTATGTAT TGAACAACT AGGATGACTG TGACTGTAGG TGAACAAAGAA AAAGAGGTGT CCACAGGTGA GGTCCAGGT TGACGTGGAG CCAAGCGCTT
mseI
bspMI
pstI
fnu4HI
bbvI
mseI      hgaI
1 CCTTGGGCTG CAGGTCGCCG TGAATTAAAG GGACGCTGTG AAGCA
CGAACCCGAC GTCCAGCGGC ACTTAAATTC CCTGCGACAC TTCGT
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